Topical corticosteroid use during pregnancy

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Abstract

Question Some of my pregnant patients have been prescribed various potencies of topical corticosteroids. Do these carry the same fetal risks as systemic corticosteroids?

Answer Pregnant women can be reassured that there is no apparent increased risk of adverse fetal effects when using topical corticosteroids during pregnancy, although some data do suggest fetal growth restriction with more potent topical corticosteroids. Overall, women should be prescribed the lowest potency required whenever possible.

Les corticostéroïdes topiques durant la grossesse

Résumé

Question On a prescrit à certaines de mes patientes enceintes des corticostéroïdes topiques à diverses concentrations. Comportent-ils les mêmes risques pour le fœtus que les corticostéroïdes systémiques?

Réponse On peut rassurer les femmes enceintes qu'il n'y a pas de risque accru apparent d'effets indésirables sur le fœtus quand elles utilisent des corticostéroïdes topiques durant la grossesse, quoique certaines données fassent valoir une restriction de la croissance fœtale lorsque les corticostéroïdes topiques sont plus puissants. En règle générale, on devrait, dans la mesure du possible, prescrire aux femmes la concentration la plus faible nécessaire.

Topical corticosteroids are prescribed to up to 6% of pregnant women for eczema and other skin conditions such as discoid lupus erythematosus, bullous pemphigoid, chronic plantar pustulosis, polymorphic eruption of pregnancy, and atopic eruptions during pregnancy.[1]

The safety for the fetus of material use of topical corticosteroids has not been clarified, and product monographs say that they should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

In the past there have been concerns about topical corticosteroid use and its association with orofacial clefts and restricted fetal growth due to similar effects as those caused by systemically delivered steroids, although the bioavailability of topical preparations is quite low.

Topical corticosteroid use

Four recent studies, 3 cohort studies and 1 case-control study did not detect a significant correlation between topical corticosteroid use in the first trimester of pregnancy and orofacial clefts.[2-5] In contrast, Edwards et al conducted a case-control study of 48 children with nonsyndromic orofacial clefts, claiming a significant increase in the prevalence of maternal use of topical corticosteroids in the first trimester of pregnancy compared with 58 controls born in the same hospital (odds ratio 13.154; 95% CI, 1.67 to 5.86; $P=.0049$).[6]

Chi et al conducted a population-based cohort study of 35 503 pregnant women prescribed topical corticosteroids from 85 days before the last menstrual period to delivery or fetal death, failing to find a relationship between the topical use of corticosteroids and orofacial clefts, preterm delivery, or fetal death. However, maternal exposure to potent or very potent forms shortly before and during pregnancy was significantly associated with fetal growth restriction (adjusted risk ratio 2.08; 95% CI, 1.40 to 3.10; number needed to harm 168), and this was confirmed by a significant dose-response relationship ($P=.025$) and a sensitivity analysis excluding exposure before the last menstrual period.[7]

In contrast, in a population-based follow-up study restricted to primigravida women, Mygind et al could not detect increased risk of low birth weight, malformations, or preterm delivery among the offspring of the women exposed to topical corticosteroids during pregnancy.[8] However, Mahé et al demonstrated a significantly increased risk of low birth weight among women who used very potent topical corticosteroids during pregnancy (relative risk 2.84; 95% CI, 1.07 to 7.54).[9]

Czeizal and Rockenbauer, in their case-control study, did not find a significant increase in congenital malformations after maternal use of topical corticosteroids in the first 3 months of pregnancy (odds ratio 1.07; 95% CI, 0.71 to 1.60).[5]

Recommendations

Recently, recommendations have been developed to guide dermatologists in maternal use of topical corticosteroids during pregnancy[7]:

- Mild- to moderate-potency topical corticosteroids should be preferred to more potent corticosteroids during pregnancy.
- Potent to very potent topical corticosteroids should be used as second-line therapy for as short a time as possible.
- The risk of adverse events is increased, theoretically, with use on high-absorption areas like the eyelids, genitals, and flexures.
- Currently, there are no data to determine the fetal safety of the newer potent lipophilic topical corticosteroids (eg, mometasone, fluticasone, and methylprednisolone) and whether they are associated with less risk of fetal growth restriction.[7]

Conclusion

Overall topical corticosteroids appear to be safe during pregnancy. High-potency topical corticosteroids should be avoided if possible and when they must be used they should be used only for the shortest period possible.

Competing interests
None declared

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